

q4 p46



Average velocity = total displacement/total time

instantaneous velocity = velocity at that time

$$v = x_f - x_i / t = (35 - 30) / 2 = 2.5 \text{ m/s}$$

p49

Concept Review

1.1 - you could say "after the word room".

5.1 cm from the middle of book 10.6 cm from the top of the page.

in the room, it is 4.0 m southwest of the fan.

on your desk - coordinates.

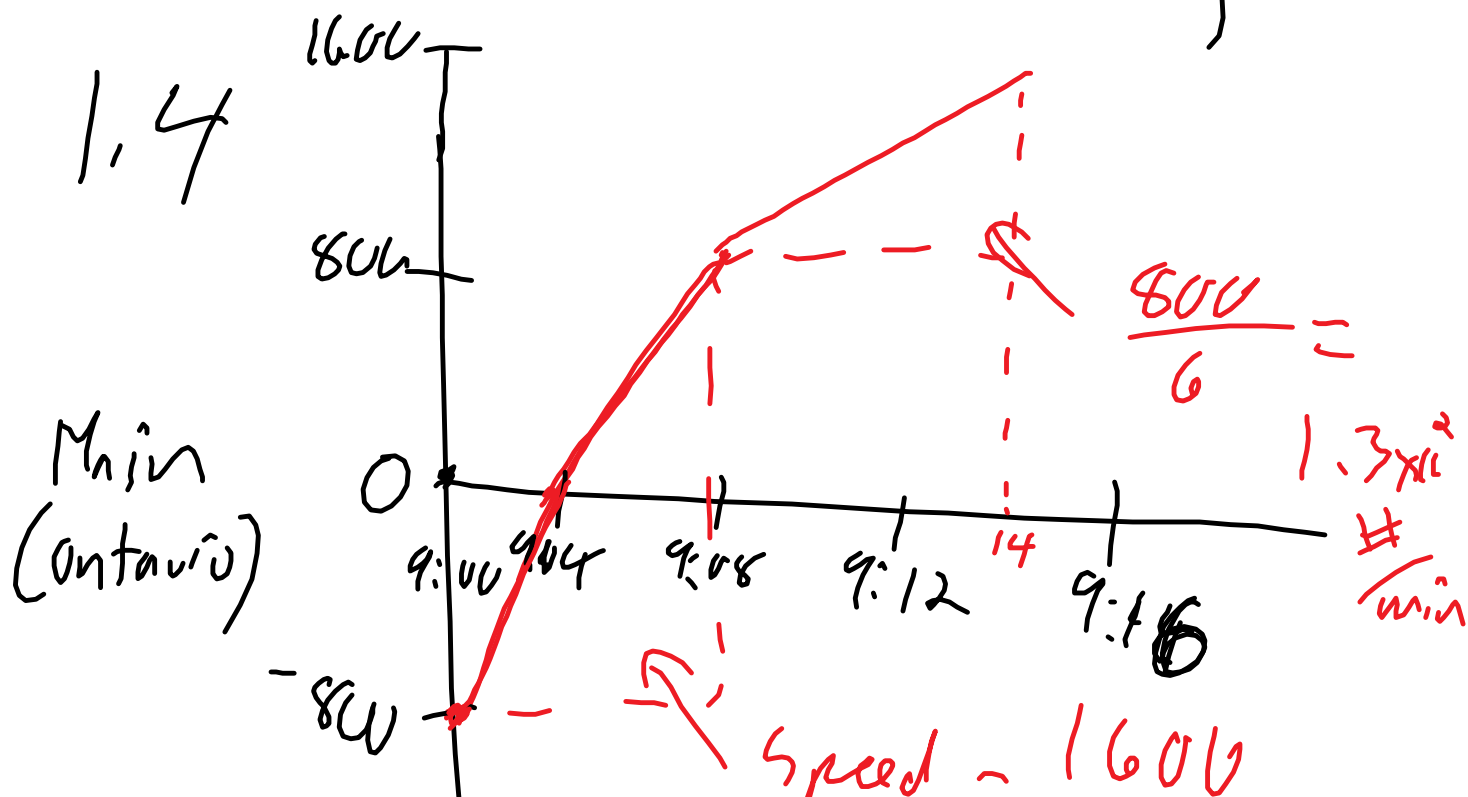
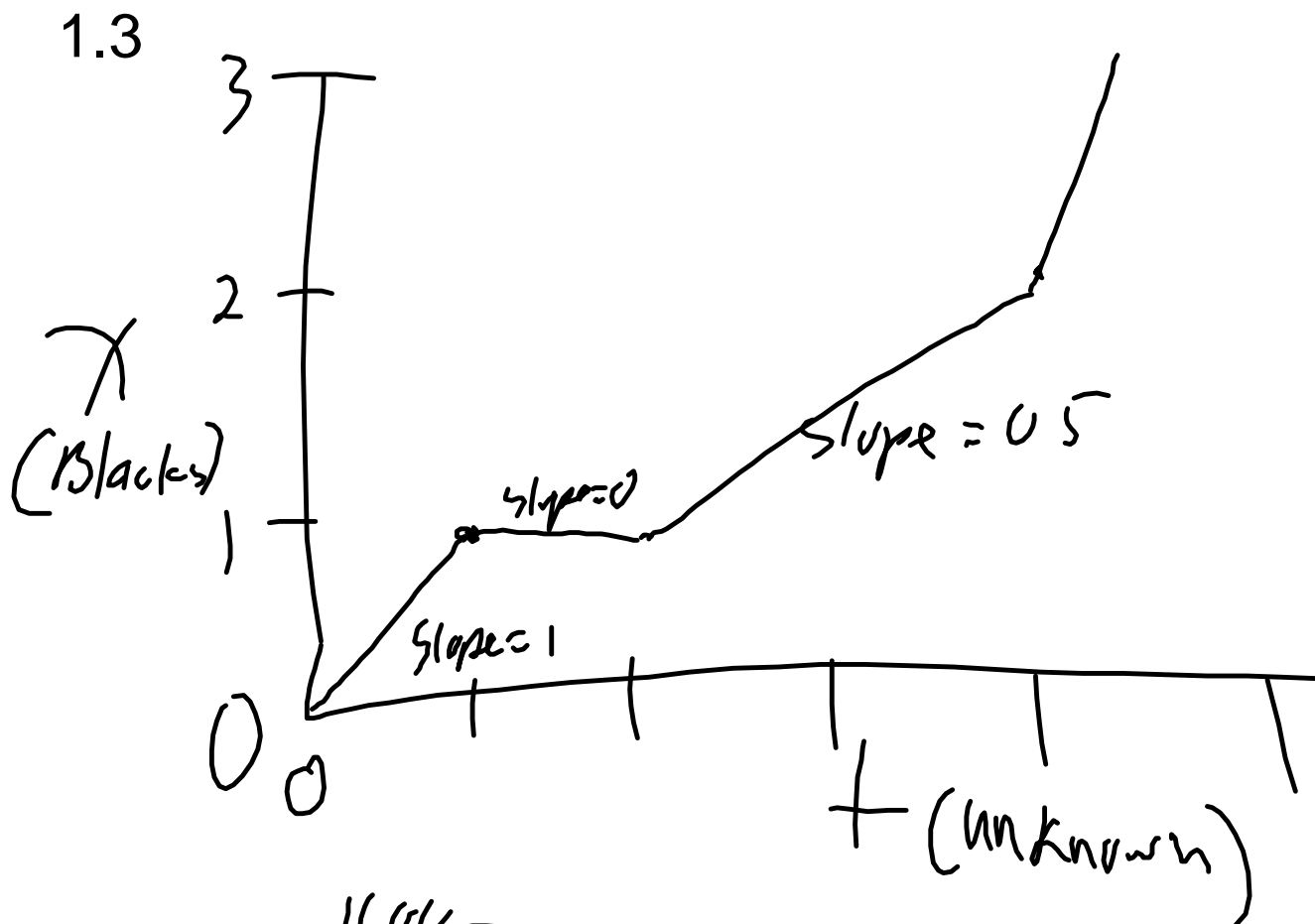
1.2 a) your hand starts off the table (y-intercept is not zero) and doesn't move (slope is 0)

b) start on the table ( y-int = 0) and move away at a constant velocity (slope is constant)

c) start off the table (y-int not 0) and move away at the same speed as B (lines are parallel have the same slope)

d) start at the table and move away slowly (low slope)

work on 1.3 and 1.4  
p53 q9-12



$\Delta U$  ——— speed =  $\frac{1600}{8}$   
 $\approx 200 \text{ \# / min}$   
 $V_{avg} = \frac{1600 - (-800)}{14} = 1.7 \times 10^3 \frac{\text{\#}}{\text{min}}$

C) largest from 9:06 - 9:08  
 smallest 9:08 to 9:14

## position - time graphs

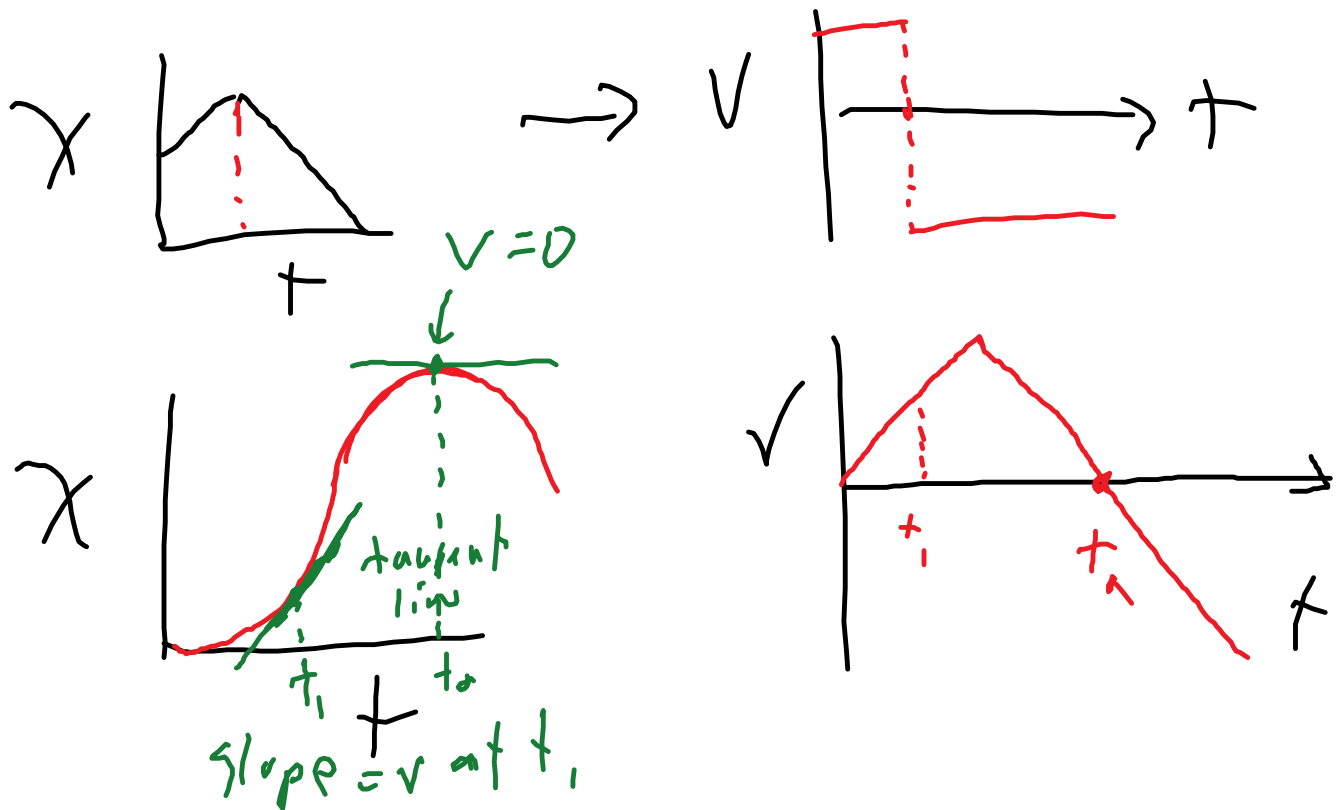
if the slope is negative, then the velocity is negative, so you are moving in the negative direction.

if the slope is zero, then the velocity is zero

If the x-t graph or d-t graph is a parabola, then the velocity is changing steadily - linear v-t graph

to find the instantaneous velocity on a curved x-t graph, you draw a tangent line to the curve.

tangent line - touches the curve at one point-  
shows the trend of the curve



p53 problems 9-12, p55 q 13-19 CR 2.1-2.4

test Friday October 7 - chapters 2 and 3

Block 1-2

hand in lab

go over homework p45-49

x-t and v-t graphs

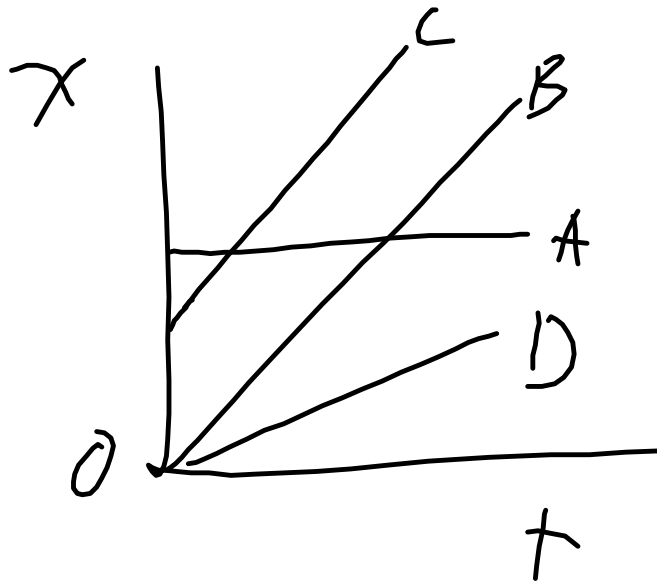
p49

CR 1.1

1. describe the position of the period in the sentence relative to the book
  - kind of in the middle

- in page 49, at the end of concept review 1.1
- 4.1 cm from the left and 10.2 cm from the top of page 49.

2.



- start off the desk because y-intercept is not zero. Your hand doesn't move because the slope is zero, a flat line represents zero velocity.
- start on the table (y-int = 0) and move up at constant speed (straight line - constant slope)
- start off the table (y-int not 0) and move up at constant speed, same speed as B because the slopes are the same - parallel.
- start at the table (y-int = 0) and move at constant slow speed (small slope).

Match the graph activity:

I draw a graph on the board.  
 You try to match the graph by walking  
 in front of the motion sensor.

